Date	Time	Class/Set	Lesson No	No. in class	Room
10/03/20	09:00	Yr9FPh	P1	Boys: 16	59
				Girls: 11	

# Your targets from weekly training meetings relevant to this lesson

TS1 Set high expectations which inspire, motivate and challenge.

TS2 Promote good progress and outcomes by pupils

TS3 Demonstrate good subject and curriculum knowledge

TS4 Plan and teach well-structured lessons

TS5 Adapt teaching to respond to the strengths and needs of all pupils

TS6 Make an accurate and productive use of assessments

TS7 Manage behaviour effectively to ensure good and safe learning environment

TS8 Fulfil wider professional responsibilities

### Background of the class context of your teaching and learning plan and your expectations

Targeted Support:

SEND
J.B.

Additional Adults:
S.P.
R.C.

R.Z., M.D., A.R., L.C., M.S., R.S., A.P., G.J., S.H., Z.A., S.S., S.C., A.A., A.K., N.M.

All students are able to communicate read and write in English.

Gifted& Talented/ More able students

J.I., O.K., F.A., A.P., E.M., G.I., R.B., M.D

#### Differentiation

**EAL** 

Differentiated starter.

Images to represent key concepts.

Extra challenge questions on the board.

Some students struggle with writing pace, optional printouts are available for the main tasks.

I will be regularly checking with students to check understanding. J.B., A.G., A.K., S.S., E.P.

## **Relevant Curriculum Statements**

Key words: Current, Amp / Ampere, Coulomb

<u>British values</u>: Democracy, Individual liberty, Mutual Respect. Encouraging the students to help each other during the lesson and share their knowledge. Making sure that students have resources and the opportunity to stretch their learning and challenge themselves in the lesson.

<u>Culture/ Science capital:</u> Michael Faraday , Georg Ohm , James Clerk Maxwell, Thomas Edison, Lewis Latimer, Lise Meitner, WW2.

## Pre-supposed knowledge / Possible Concepts / Misconceptions / Alternative Ideas

<u>Prior learning</u>: students know the different states of matte, most students know what internal energy is and the effects on a substance when heat is applied.

Skills: observation, making predictions, making connections, mathematically manipulate a formula.

Misconceptions: batteries do not store electrons/ charge.

Curriculum links: Chemistry- ions in seawater. History- WW2 dates.

<u>Literacy:</u> Glossary given at the start of the chapter. Definitions of words throw-out the lesson.

#### Learning points and success criteria:

- Define electric current
- Use the appropriate formula to calculate electric charge.
- Describe what makes metal an electrical conductor.

Time	Teacher Activity	Pupil Activity		
	What are you doing? Additional adults in room?	What are the pupils doing? Evidence of		
	,	progress? Refer to Learning Points.		
10	- Get ready for the lesson.	- Get ready for the lesson.		
mins	- Hand the chapter glossary.	- Attempt starter.		
	- Starter on the board (★ Sketch and label the parts	<ul> <li>Identify starting point.</li> </ul>		
	of the atom.	Progress		
	★★ Why are the symbols/ signs bellow important?	<ul> <li>Recall previous already existing</li> </ul>		
	★★★ Name some uses of electrical current.	knowledge.		
	Challenge: draw a simple circuit.)	- Think creatively.		
	- Circulate the room.	- Collaborate for answers.		
10	- Feedback answers.	- Contribute to the answers.		
mins	<ul> <li>Introducing the learning objectives.</li> </ul>	Progress		
	<ul> <li>Why do we learn about current and circuits?</li> </ul>	<ul> <li>Check answers.</li> </ul>		
	- Who?- culture/ science capital/ British values.	- Self- marking.		
	- What is current?- short explanation.			
	- Task: 1) Sketch a working, symbol circuit using the			
	following equipment (Battery, Bulb, Switch, Wires).			
	- 2) If you were an electrician fixing circuits in a			
	house what safety "rules" or steps will you consider?			
	- Challenge ***			
	Why are sockets are not allowed in bathrooms or shower rooms?			
	- Circulate the room.			
10	- Feedback answers.	- Takes notes as necessary.		
mins	- Electri village story.	<ul><li>Participate in the demonstration.</li></ul>		
	- Energy stick demonstration- constant flow of	Progress		
	charge.	- Visualize concepts.		
	- Targeted questions/ class participation.	- Ask questions.		
10	- Story take away theory.	- Make notes as appropriate.		
mins	- Challenge ★★★	- Stretch understanding via		
	- Produce an equation that linked all the variables	challenge.		
	(current, charge and time). Provide units	- Attempt task.		
	- Current and charge formula.	Progress		
	- AFL task- Rearrange for Q	<ul> <li>Mathematically manipulate the</li> </ul>		
	Rearrange for t	formula.		
	Example	- Apply knowledge.		
	- Challenge ★★★ available.	- Check understanding,		
	- Circulate the room.			
10	- Go through answers.	- Contribute to the answers.		
mins	- Insulators and conductors theory.	- Stretch understanding via		
	- AFL task- Match up (definitions and examples).	challenge.		
	- Challenge ★★★	- Attempt task.		
	Why is sea water a good conductor?	Progress Charle analysis		
	What do you think cables are made out of and	- Check answers.		
	why?	- Self- marking.		
	- Wires theory.			
	- Why are wires made of plastic part and a metal			
	part? - Circulate the room.			
10	- Exit ticket handed out.	- Attempt exit ticket.		
mins	- Go through answers.	- Recap key concepts.		
	- Consolidate the lesson.	- Check answers.		
	- Collect homework on the way out.	Progress		
	Construction on the way out.	- Self-reflect on progress and		
		understanding.		
		- Green pen marking.		
	I .	- 1		

Resources needed: printouts, glue, energy stick.

Health and Safety issues and Risk Assessment: Students will be following the basic lab safety rules which include; no drinking water or eating and place all belongings under the bench. Students are not expected to walk around the room without specified purpose.

Homework set: NA